

EEEEEEEEEEEEEEEE	DDDDDDDDDDDDDD	TTTTTTTTTTTTTTTT
EEEEEEEEEEEEEEEE	DDDDDDDDDDDDDD	TTTTTTTTTTTTTTTT
EEEEEEEEEEEEEEEE	DDDDDDDDDDDDDD	TTTTTTTTTTTTTTTT
EEE	DDD	TTT
EEE	DDD	TTT
EEE	DDD	TTT
EEE	DDD	TTT
EEE	DDD	TTT
EEE	DDD	TTT
EEEEEEEEEEEEEE	DDD	TTT
EEEEEEEEEEEEEE	DDD	TTT
EEEEEEEEEEEEEE	DDD	TTT
EEE	DDD	TTT
EEE	DDD	TTT
EEE	DDD	TTT
EEE	DDD	TTT
EEE	DDD	TTT
EEEEEEEEEEEEEEEE	DDDDDDDDDDDDDD	TTT
EEEEEEEEEEEEEEEE	DDDDDDDDDDDDDD	TTT
EEEEEEEEEEEEEEEE	DDDDDDDDDDDDDD	TTT

WW	WW	FFFFFFFF	GGGGGGGG	EEEEEEEEEE	TTTTTTTTTT	BBBBBBBB	KK	KK	TTTTTTTTTT
WW	WW	FFFFFFFF	GGGGGGGG	EEEEEEEEEE	TTTTTTTTTT	BBBBBBBB	KK	KK	TTTTTTTTTT
WW	WW	FF	GG	EE	TT	BB	BB	KK	TT
WW	WW	FF	GG	EE	TT	BB	BB	KK	TT
WW	WW	FF	GG	EE	TT	BB	BB	KK	TT
WW	WW	FF	GG	EE	TT	BB	BB	KK	TT
WW	WW	FFFFFFFF	GG	EEEEEEEE	TT	BBBBBBBB	KKKKKK	KK	TT
WW	WW	FFFFFFFF	GG	EEEEEEEE	TT	BBBBBBBB	KKKKKK	KK	TT
WW	WW	FF	GG	GGGGGG	TT	BB	BB	KK	TT
WW	WW	FF	GG	GGGGGG	TT	BB	BB	KK	TT
WWW	WWW	FF	GG	GG	TT	BB	BB	KK	TT
WWW	WWW	FF	GG	GG	TT	BB	BB	KK	TT
WW	WW	FF	GGGGGG	EEEEEEEEEE	TT	BBBBBBBB	KK	KK	TT
WW	WW	FF	GGGGGG	EEEEEEEEEE	TT	BBBBBBBB	KK	KK	TT

```

LL                      IIIIII                      SSSSSSSS
LL                      IIIIII                      SSSSSSSS
LL                      II                     SS
LL                      II                     SS
LL                      II                     SS
LL                      II                     SS
LL                      II                    SSSSSS
LL                      II                    SSSSSS
LL                      II                     SS
LL                      II                     SS
LL                      II                     SS
LL                      II                     SS
LLLLLLLLLLLL            IIIIII                      SSSSSSSS
LLLLLLLLLLLL            IIIIII                      SSSSSSSS

```

```
0001 0 %TITLE 'EDT$WFGETBKT - allocate a bucket'
0002 0 MODULE EDT$WFGETBKT (
0003      IDENT = 'V04-000'
0004 ) =
0005 1 BEGIN
0006 1
0007 1 *****
0008 1 *
0009 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
0010 1 * DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.
0011 1 * ALL RIGHTS RESERVED.
0012 1 *
0013 1 * THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED
0014 1 * ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE
0015 1 * INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER
0016 1 * COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY
0017 1 * OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY
0018 1 * TRANSFERRED.
0019 1 *
0020 1 * THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE
0021 1 * AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT
0022 1 * CORPORATION.
0023 1 *
0024 1 * DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
0025 1 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0026 1 *
0027 1 *****
0028 1
0029 1
0030 1
0031 1 ++
0032 1 FACILITY:      EDT -- The DEC Standard Editor
0033 1
0034 1 ABSTRACT:
0035 1
0036 1     Allocate a bucket.
0037 1
0038 1 ENVIRONMENT:  Runs at any access mode - AST reentrant
0039 1
0040 1 AUTHOR: Bob Kushlis, CREATION DATE: October 16, 1978
0041 1
0042 1 MODIFIED BY:
0043 1
0044 1 1-001 - Original.  DJS 23-Feb-1981.  This module was created by
0045 1         extracting routine GET_NEW_BUKT from module EDTWF.
0046 1 1-002 - Regularize headers.  JBS 16-Mar-1981
0047 1 1-003 - Change SY_EXIT to EDT$SYS_EXIT.  JBS 31-Mar-1981
0048 1 1-004 - Modify to use EDT$WORKIO.  STS 15-Feb-1982
0049 1 1-005 - Call WF_EXT if running on 11's.  STS 26-Feb-1982
0050 1 1-006 - Add literals for callable parameters.  STS 08-Mar-1982
0051 1 1-007 - Fix module name.  JBS 07-Apr-1982
0052 1 1-008 - Fix work file overflow message.  JBS 05-Jul-1982
0053 1 --
0054 1
```

EDT\$WFGETBKT
V04-000

EDT\$WFGETBKT - allocate a bucket
Declarations

F 8
16-Sep-1984 02:06:54
14-Sep-1984 12:25:33

VAX-11 Bliss-32 V4.0-742 Page 2
DISK\$VMSMASTER:[EDT.SRC]WFGETBKT.BLI;1 (2)

```

: 56      0055 1 %SBTTL 'Declarations'
: 57      0056 1
: 58      0057 1 : TABLE OF CONTENTS:
: 59      0058 1 :
: 60      0059 1
: 61      0060 1 REQUIRE 'EDTSRC:TRAROUNAM';
: 62      0499 1
: 63      0500 1 FORWARD ROUTINE
: 64      0501 1     EDT$WF_ALOBUF : NOVALUE;
: 65      0502 1
: 66      0503 1 :
: 67      0504 1 : INCLUDE FILES:
: 68      0505 1 :
: 69      0506 1
: 70      0507 1 REQUIRE 'EDTSRC:EDTREQ';
: 71      0642 1
: 72      L 0643 1 %IF %BLISS (BLISS32)
: 73      0644 1 %THEN
: 74      0645 1
: 75      0646 1 REQUIRE 'EDTSRC:SYSSYM';
: 76      0676 1
: 77      0677 1 %FI
: 78      0678 1
: 79      0679 1 :
: 80      0680 1 : MACROS:
: 81      0681 1 :
: 82      0682 1 :     NONE
: 83      0683 1 :
: 84      0684 1 : EQUATED SYMBOLS:
: 85      0685 1 :
: 86      0686 1
: 87      0687 1 EXTERNAL LITERAL
: 88      0688 1     EDT$K_GET;
: 89      0689 1
: 90      0690 1 :
: 91      0691 1 : OWN STORAGE:
: 92      0692 1 :
: 93      0693 1 :     NONE
: 94      0694 1 :
: 95      0695 1 : EXTERNAL REFERENCES:
: 96      0696 1 :
: 97      0697 1 :     In the routine
```

```

: 99      0698 1 %SBTTL 'EDT$WF_ALOBUF - allocate a bucket'
: 100     0699 1
: 101     0700 1 GLOBAL ROUTINE EDT$WF_ALOBUF                ! Allocate a bucket
: 102     0701 1      : NOVALUE =
: 103     0702 1
: 104     0703 1      ++
: 105     0704 1      FUNCTIONAL DESCRIPTION:
: 106     0705 1
: 107     0706 1          This routine allocates a new bucket from the work-file.  If there
: 108     0707 1          is a bucket available on the deleted bucket list, use it, otherwise
: 109     0708 1          take the next higher numbered bucket.
: 110     0709 1
: 111     0710 1      FORMAL PARAMETERS:
: 112     0711 1
: 113     0712 1          NONE
: 114     0713 1
: 115     0714 1      IMPLICIT INPUTS:
: 116     0715 1
: 117     0716 1          EDT$G_WK_GRTSTBUK
: 118     0717 1          EDT$A_WK_BUK
: 119     0718 1
: 120     0719 1      IMPLICIT OUTPUTS:
: 121     0720 1
: 122     0721 1          EDT$Z_WF_DESC
: 123     0722 1          EDT$G_WK_AVAIL
: 124     0723 1          EDT$G_WK_CURBUK
: 125     0724 1          EDT$G_WK_GRTSTBUK
: 126     0725 1
: 127     0726 1      ROUTINE VALUE:
: 128     0727 1
: 129     0728 1          NONE
: 130     0729 1
: 131     0730 1      SIDE EFFECTS:
: 132     0731 1
: 133     0732 1          If the work file overflows, never returns to its caller.
: 134     0733 1
: 135     0734 1      --
: 136     0735 1
: 137     0736 2      BEGIN
: 138     0737 2
: 139     0738 2      %IF %BLISS (BLISS16)
: 140     0739 2      %THEN
: 141     0740 2
: 142     0741 2          EXTERNAL ROUTINE
: 143     0742 2          EDT$WF_EXT;                                ! extend the work file by placing a new bucket in the cache
: 144     0743 2
: 145     0744 2      %FI
: 146     0745 2
: 147     0746 2          EXTERNAL ROUTINE
: 148     0747 2          EDT$FMT_MSG,                                ! Put the text of a message in the format buffer
: 149     0748 2          EDT$FMT_CRLF,                               ! Terminate the line being built in the format buffer
: 150     0749 2          EDT$CALWIO,
: 151     0750 2          EDT$WF_MAKECUR : NOVALUE,
: 152     0751 2          EDT$SYS_EXI;                                ! Leave EDT abruptly
: 153     0752 2
: 154     0753 2          EXTERNAL
: 155     0754 2          EDT$Z_WF_DESC : BLOCK [, BYTE],            ! descriptor for workfile record

```

```
156 0755 2      EDTSSG_WK_AVAIL,      ! Pointer to next available deleted bucket
157 0756 2      EDTSSG_WK_CURBUK,      ! Number of the current bucket
158 0757 2      EDTSSG_WK_GRTSTBUK,    ! Largest bucket number in use
159 0758 2      EDTSSA_WK_BUK :        ! Pointer to current bucket
160 0759 2      REF BLOCK [WF_BUKT_SIZE, BYTE] FIELD (WFB_FIELDS);
161 0760 2
162 0761 2      MESSAGES ((WRKFILOVF));
163 0762 2
164 0763 2      IF (.EDTSSG_WK_AVAIL NEQ 0)
165 0764 2      THEN
166 0765 2          BEGIN
167 0766 2          EDTSWF_MAKECUR (.EDTSSG_WK_AVAIL);
168 0767 2          EDTSSG_WK_AVAIL = .EDTSSA_WK_BUK [WFB_NEXT_BUKT];
169 0768 2          END
170 0769 2      ELSE
171 0770 2          BEGIN
172 0771 2      !+
173 0772 2      !- Check for overflow
174 0773 2      !-
175 0774 2          IF ((.EDTSSG_WK_GRTSTBUK EQL 0) OR      !
176 0775 2          (.EDTSSG_WK_GRTSTBUK GTRU 65535))      !
177 0776 2          THEN
178 0777 2              BEGIN
179 0778 2              EDT$FMT_MSG (EDT$WRKFILOVF);
180 0779 2              EDT$FMT_CRLF ();
181 0780 2              EDT$SYS_EXI (EDT$WRKFILOVF);
182 0781 2              END;
183 0782 2
184 0783 2      !+
185 0784 2      !- Inform the caching routines that we are creating a new bucket.
186 0785 2      !- On the 11's we have to bring another bucket into the cache specially
187 0786 2      !-
188 0787 2
189 0788 2
190 L 0789 2      %IF %BLISS (BLISS32)
191 0790 2      %THEN
192 0791 2          EDT$CALLWIO (EDT$K_GET, .EDTSSG_WK_GRTSTBUK, EDT$Z_WF_DESC);
193 0792 2      %ELSE
194 0793 2          EDTSWF_EXT (.EDTSSG_WK_GRTSTBUK, EDTSSA_WK_BUK);
195 0794 2          EDT$Z_WF_DESC [DSC$A_POINTER] = .EDTSSA_WK_BUK;
196 0795 2      %FI
197 0796 2
198 0797 2          EDTSSA_WK_BUK = .EDT$Z_WF_DESC [DSC$A_POINTER];      !get address of record
199 0798 2          EDTSSG_WK_CURBUK = .EDTSSG_WK_GRTSTBUK;
200 0799 2      !+
201 0800 2      !- And bump the largest bucket number.
202 0801 2      !-
203 0802 2          EDTSSG_WK_GRTSTBUK = .EDTSSG_WK_GRTSTBUK + 1;
204 0803 2          END;
205 0804 2
206 0805 2      END;

! End of routine EDTSWF_ALOBUF
```

```
.TITLE  EDTSWFGETBKT EDTSWFGETBKT - allocate a bucket
.IDENT  \V04-000\
.EXTRN  EDT$K_GET, EDT$FMT_MSG
```

EDT\$WFGETBKT
V04-000

EDT\$WFGETBKT - allocate a bucket
EDT\$\$WF_ALOBUF - allocate a bucket

I 8
16-Sep-1984 02:06:54
14-Sep-1984 12:25:33

VAX-11 Bliss-32 V4.0-742
DISK\$VMSMASTER:[EDT.SRC]WFGETBKT.BLI;1 Page 5
(3)

```

                                003C 00000
55 00000000G 00 9E 00002
54 00000000G 8F D0 00009
53 00000000G 00 9E 00010
52 00000000G 00 9E 00017
50                                65 D0 0001E
                                11 13 00021
                                50 DD 00023
00000000G 00 01 FB 00025
50 63 D0 0002C
65 02 A0 3C 0002F
                                04 00033
50 62 D0 00034 1$:
0000FFFF 8F 09 13 00037
                                50 D1 00039
                                19 1B 00040
                                54 DD 00042 2$:
00000000G 00 01 FB 00044
00000000G 00 00 FB 0004B
                                54 DD 00052
00000000G 00 01 FB 00054
                                00 9F 0005B 3$:
                                62 DD 00061
                                00000000G 8F DD 00063
00000000G 00 03 FB 00069
                                00 D0 00070
00000000G 00 63 00000000G 00 D0 00077
                                62 D6 0007E
                                04 00080
```

```

.EXTRN EDT$$FMT_CRLF, EDT$$CALLWIO
.EXTRN EDT$$WF_MAKECUR
.EXTRN EDT$$SYS_EXI, EDT$$Z_WF_DESC
.EXTRN EDT$$G_WK_AVAIL
.EXTRN EDT$$G_WK_CURBUK
.EXTRN EDT$$G_WK_GRTSTBUK
.EXTRN EDT$$A_WK_BUK, EDT$_WRKFILOVF

.PSECT _EDT$CODE, NOWRT, SHR, PIC, 2

.ENTRY EDT$$WF_ALOBUF, Save R2, R3, R4, R5
MOVAB EDT$$G_WK_AVAIL, R5
MOVL #EDT$_WRKFILOVF, R4
MOVAB EDT$$A_WK_BUK, R3
MOVAB EDT$$G_WK_GRTSTBUK, R2
MOVL EDT$$G_WK_AVAIL, R0
BEQL 1$
PUSHL R0
CALLS #1, EDT$$WF_MAKECUR
MOVL EDT$$A_WK_BUK, R0
MOVZWL 2(R0), EDT$$G_WK_AVAIL
RET
MOVL EDT$$G_WK_GRTSTBUK, R0
BEQL 2$
CML R0, #65535
BLEQU 3$
PUSHL R4
CALLS #1, EDT$$FMT_MSG
CALLS #0, EDT$$FMT_CRLF
PUSHL R4
CALLS #1, EDT$$SYS_EXI
PUSHAB EDT$$Z_WF_DESC
PUSHL EDT$$G_WK_GRTSTBUK
PUSHL #EDT$K_GET
CALLS #3, EDT$$CALLWIO
MOVL EDT$$Z_WF_DESC+4, EDT$$A_WK_BUK
MOVL EDT$$G_WK_GRTSTBUK, EDT$$G_WK_CURBUK
INCL EDT$$G_WK_GRTSTBUK
RET
```

```

: 0700
:
:
: 0763
:
: 0766
:
: 0767
:
: 0763
: 0775
:
: 0776
:
: 0779
:
: 0780
: 0781
:
: 0791
:
:
:
: 0797
: 0798
: 0802
: 0805
```

; Routine Size: 129 bytes, Routine Base: _EDT\$CODE + 0000

```

: 207 0806 1
: 208 0807 1 !<BLF/PAGE>
```

EDT
V04

SR
J
C

EDT\$WFGETBKT
V04-000

EDT\$WFGETBKT - allocate a bucket
EDT\$\$WF_ALOBUF - allocate a bucket

J 8
16-Sep-1984 02:06:54
14-Sep-1984 12:25:33

VAX-11 Bliss-32 V4.0-742
DISK\$VMSMASTER:[EDT.SRC]WFGETBKT.BLI;1 (4)

Page 6

: 210 0808 1 END
: 211 0809 1
: 212 0810 0 ELUDOM

! End of module EDT\$WFGETBKT

PSECT SUMMARY

: Name Bytes Attributes
: _EDT\$CODE 129 NOVEC,NOWRT, RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)

Library Statistics

File	----- Total	Symbols Loaded	----- Percent	Pages Mapped	Processing Time
-\$255\$DUA28:[EDT.SRC]EDT.L32;1	377	7	1	40	00:00.2
-\$255\$DUA28:[EDT.SRC]PSECTS.L32;1	2	1	50	7	00:00.1
-\$255\$DUA28:[SYSLIB]STARLET.L32;1	9776	1	0	581	00:04.0

COMMAND QUALIFIERS

: BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACEBACK/LIS=LIS\$:WFGETBKT/OBJ=OBJ\$:WFGETBKT MSRC\$:WFGETBKT.BLI/UPDATE=(ENH\$:WFGE
: TBKT)

: Size: 129 code + 0 data bytes
: Run Time: 00:16.9
: Elapsed Time: 00:30.6
: Lines/CPU Min: 2872
: Lexemes/CPU-Min: 7968
: Memory Used: 85 pages
: Compilation Complete

0141 AH-BT13A-SE
VAX/VMS V4.0

DIGITAL EQUIPMENT CORPORATION
CONFIDENTIAL AND PROPRIETARY